Proprietà

DATA 4 ITALY

Progetto

DC 06
MILAN

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Cod	Data	Descrizione
	29/10/2020	Creation document

DATA 4 ITALY - DC06

Fiche technique groupe électrogène / Genset Datasheet

Scheda Gruppo Elettrogeno

Cat® 3516B
Diesel Generator Sets

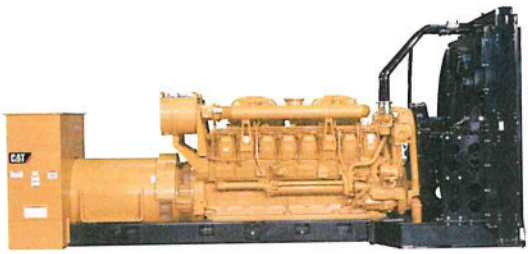


Image shown may not reflect actual configuration

Bore – mm (in)	170 (6.69)
Stroke – mm (in)	215 (8.46)
Displacement – L (in³)	78.08 (4764.73)
Compression Ratio	15.5:1
Aspiration	TA
Fuel System	EUI
Governor Type	ADEM™ A3

Standby 50 Hz kVA (ekW)	Mission Critical 50 Hz kVA (ekW)	Prime 50 Hz kVA (ekW)	Continuous 50 Hz kVA (ekW)	Emissions Performance
2500 (2000)	2500 (2000)	2275 (1820)	2000 (1600)	Optimized for Low Fuel Consumption or Low Emissions

Standard Features

Cat® Diesel Engine
- Designed and optimized for low emissions or low fuel consumption
- Reliable performance proven in thousands of applications worldwide

Generator Set Package
- Accepts 100% block load in one step and meets other NFPA 110 loading requirements
- Conforms to ISO 8528-5 G3 load acceptance requirements
- Reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

Alternators
- Superior motor starting capability minimizes need for oversizing generator
- Designed to match performance and output characteristics of Cat diesel engines

Cooling System
- Cooling systems available to operate in ambient temperatures up to 50°C (122°F)
- Tested to ensure proper generator set cooling

EMCP 4 Control Panels
- User-friendly interface and navigation
- Scalable system to meet a wide range of installation requirements
- Expansion modules and site specific programming for specific customer requirements

Warranty
- 24 months/1000-hour warranty for standby and mission critical ratings
- 12 months/unlimited hour warranty for prime and continuous ratings
- Extended service protection is available to provide extended coverage options

Worldwide Product Support
- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- Your local Cat dealer provides extensive post-sale support, including maintenance and repair agreements

Financing
- Caterpillar offers an array of financial products to help you succeed through financial service excellence
- Options include loans, finance lease, operating lease, working capital, and revolving line of credit
- Contact your local Cat dealer for availability in your region

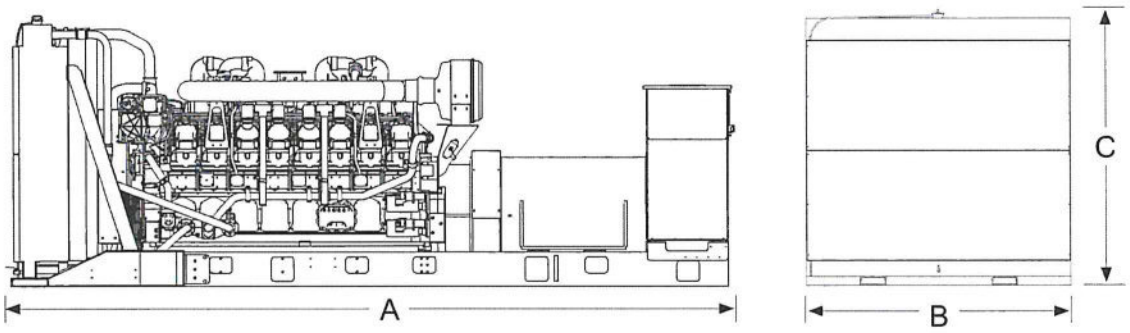
Package Performance

Low Emissions

Performance	Standby		Mission Critical		Prime		Continuous	
Frequency	50 Hz		50 Hz		50 Hz		50 Hz	
Gen set power rating with fan	2000 ekW		2000 ekW		1820 ekW		1600 ekW	
Gen set power rating with fan @ 0.8 power factor	2500 kVA		2500 kVA		2275 kVA		2000 kVA	
Emissions	Low Emissions		Low Emissions		Low Emissions		Low Emissions	
Performance number	DM8378-02		EM0620-00		DM8381-01		DM8384-01	
Fuel Consumption								
100% load with fan – L/hr (gal/hr)	547.4	(144.6)	547.4	(144.6)	488.3	(129.0)	437.3	(115.5)
75% load with fan – L/hr (gal/hr)	412.3	(108.9)	412.3	(108.9)	371.7	(98.2)	326.3	(86.2)
50% load with fan – L/hr (gal/hr)	278.8	(73.7)	278.8	(73.7)	249.2	(65.8)	220.9	(58.4)
25% load with fan – L/hr (gal/hr)	152.2	(40.2)	152.2	(40.2)	139.3	(36.8)	126.5	(33.4)
Cooling System								
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)
Radiator air flow – m³/min (cfm)	1911	(67486)	1911	(67486)	1911	(67486)	1911	(67486)
Engine coolant capacity – L (gal)	233.0	(61.6)	233.0	(61.6)	233.0	(61.6)	233.0	(61.6)
Radiator coolant capacity – L (gal)	149.0	(39.4)	149.0	(39.4)	149.0	(39.4)	149.0	(39.4)
Total coolant capacity – L (gal)	382	(101.0)	382	(101.0)	382	(101.0)	382	(101.0)
Inlet Air								
Combustion air inlet flow rate – m³/min (cfm)	174.3	(6154.7)	174.3	(6154.7)	171.4	(6052.2)	163.8	(5784.0)
Exhaust System								
Exhaust stack gas temperature – °C (°F)	535.3	(995.5)	535.3	(995.5)	473.5	(884.3)	451.0	(843.8)
Exhaust gas flow rate – m³/min (cfm)	490.2	(17309.3)	490.2	(17309.3)	444.0	(15677.8)	410.4	(14491.8)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
Heat Rejection								
Heat rejection to jacket water – kW (Btu/min)	724	(41173)	724	(41173)	617	(35088)	563	(32018)
Heat rejection to exhaust (total) – kW (Btu/min)	2301	(130856)	2301	(130856)	1984	(112826)	1726	(98158)
Heat rejection to aftercooler – kW (Btu/min)	549	(31221)	549	(31221)	560	(31846)	474	(26957)
Heat rejection to atmosphere from engine – kW (Btu/min)	167	(9497)	167	(9497)	141	(8018)	131	(7450)
Heat rejection from alternator – kW (Btu/min)	94	(5362)	94	(5362)	84	(4770)	72	(4092)
Emissions (Nominal)								
NOx mg/Nm³ (g/hp-h)	1813.3	(3.97)	1813.3	(3.97)	1742.2	(3.77)	1488.4	(3.28)
CO mg/Nm³ (g/hp-h)	462.8	(1.01)	462.8	(1.01)	222.2	(0.48)	261.4	(0.58)
HC mg/Nm³ (g/hp-h)	48.7	(0.11)	48.7	(0.11)	60.9	(0.13)	65.4	(0.14)
PM mg/Nm³ (g/hp-h)	42.3	(0.09)	42.3	(0.09)	35.5	(0.08)	29.5	(0.07)
Emissions (Potential Site Variation)								
NOx mg/Nm³ (g/hp-h)	2176.0	(4.77)	2176.0	(4.77)	2090.6	(4.53)	1786.1	(3.94)
CO mg/Nm³ (g/hp-h)	833.0	(1.82)	833.0	(1.82)	400.0	(0.87)	470.5	(1.04)
HC mg/Nm³ (g/hp-h)	64.8	(0.14)	64.8	(0.14)	81.0	(0.18)	87.0	(0.19)
PM mg/Nm³ (g/hp-h)	59.2	(0.13)	59.2	(0.13)	49.7	(0.11)	41.3	(0.09)

3516B Diesel Generator Sets
Electric Power

Weights and Dimensions



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
6377 (251.7)	2286 (90.0)	2367 (93.2)	18 290 (40,320)

Note: *For reference only. Do not use for installation design. Contact your local Cat dealer for precise weights and dimensions.*

Ratings Definitions

Standby
Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

Mission Critical
Output available with varying load for the duration of the interruption of the normal source power. Average power output is 85% of the mission critical power rating. Typical peak demand up to 100% of rated power for up to 5% of the operating time. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

Prime
Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated ekW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year.

Continuous
Output available with non-varying load for an unlimited time. Average power output is 70-100% of the continuous power rating. Typical peak demand is 100% of continuous rated kW for 100% of the operating hours.

Applicable Codes and Standards
AS1359, CSA C22.2 No100-04, UL142, UL489, UL869, UL2200, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 2014/35/EU, 2006/42/EC, 2014/30/EU.

Note: Codes may not be available in all model configurations. Please consult your local Cat dealer for availability.

Data Center Applications
Tier III/Tier IV compliant per Uptime Institute requirements. ANSI/TIA-942 compliant for Rated-1 through Rated-4 data centers.

Fuel Rates
Fuel rates are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.)

www.cat.com/electricpower
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Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.

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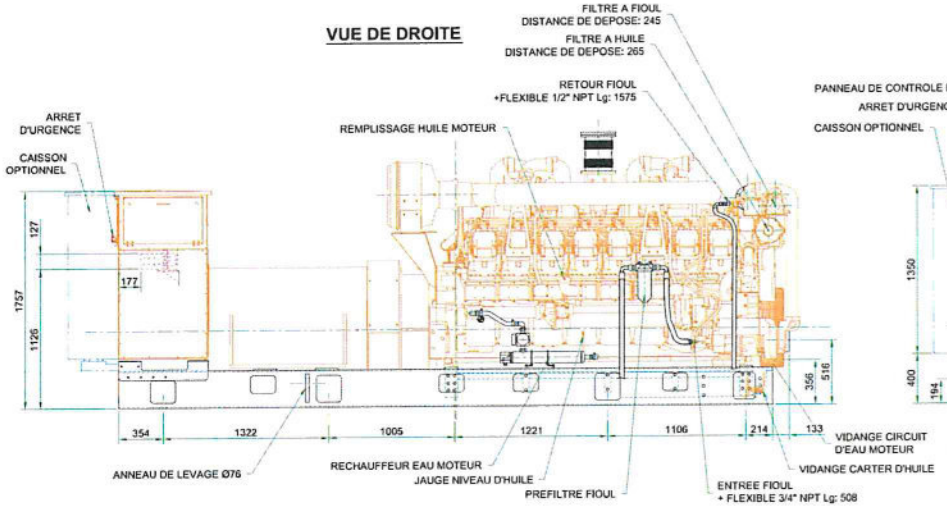
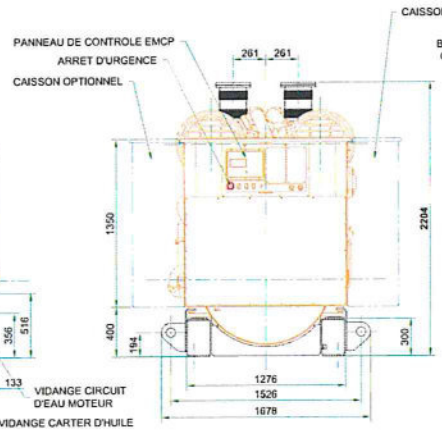
3516 PGEI
LEHE1282-00 (5-17)

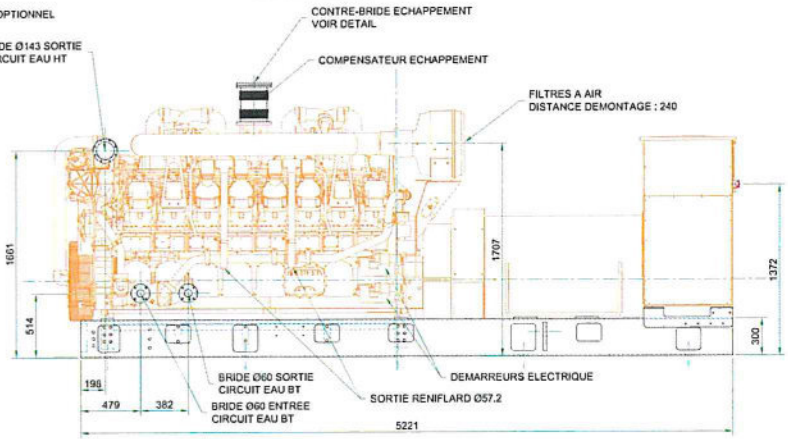
VUE DE DROITE



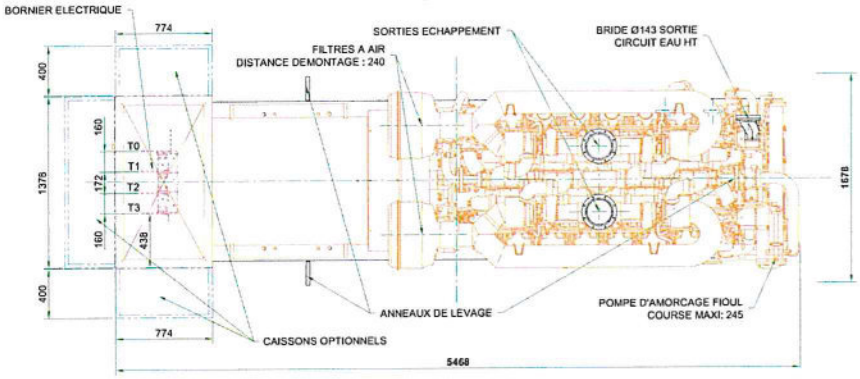
VUE ARRIERE



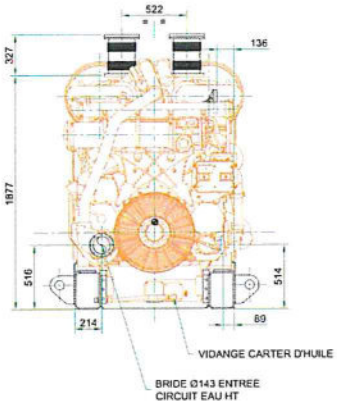
VUE DE GAUCHE



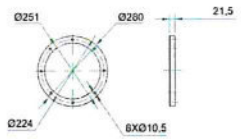
VUE DE DESSUS



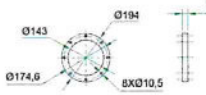
VUE DE FACE



DETAIL CONTRE-BRIDES ECHAPPEMENT ECH: 1/10



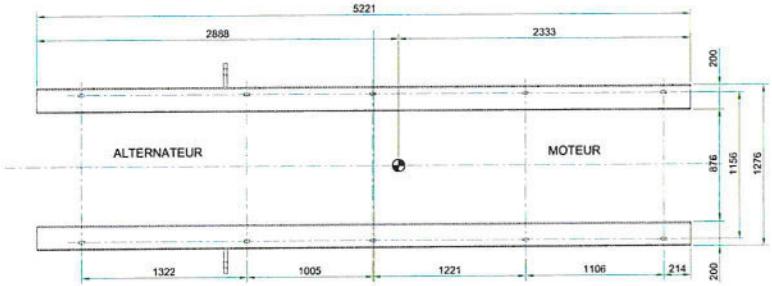
DETAIL BRIDES ENREE/SORTIE CIRCUIT EAU HT ECH: 1/10



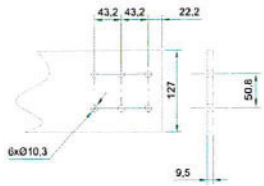
DETAIL BRIDES ENREE/SORTIE CIRCUIT BT ECH: 1/10

QUANTITE D'HUILE : 405L
QUANTITE D'EAU : 233L
POIDS TOTAL AVEC PLEINS EAU ET HUILE ≈ 17 000kg

PLAN DE POSE-VUE DE DESSUS



DETAIL DES 6 TROUS DU JEU DE BARRES IEC ECH: 1/4



FEATURE CODE : 516DE9J
N° PLAN CAT : 4170100-02

Révision	Date	Auteur	Vérification	Observation	Validation
03	06/10/15	BEZIER D.	GONCALVES C.	MISE A JOUR CHASSIS SUIVANT PLAN CAT	LEMAIRE L.
02	28/12/11	BEZIER D.	DARDAINE A.	MISE A JOUR DES GAINES A BARRES	JEAN/EAN L.
01	07/07/11	L.RIGAUD	A.DARDAINE	AJOUT PLOTS CAOUTCHOUC	L.JEAN/EAN
00	14/03/11	L.RIGAUD	A.DARDAINE	DIFFUSION	L.JEAN/EAN

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Site Internet : www.eneria.com

3516B-HD Groupe Electrogène Standard SR5

3516B-HD Frame 1844 sans Radiateur 2500 KVA

FORMAT	ECHELLE	FEUILLE	N° DE PLAN ENERIA	REVISION
A1	1/20	1/1	G EN 8500	03

CE DESSIN N'EST LA PROPRIETE DE ENERIA ET NE PEUT ETRE REPRODUIT OU COMMUNIQUE SANS AUTORISATION.

Proprietà

DATA 4 ITALY

Progetto

DC 06
MILAN

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Cod	Data	Descrizione
	29/10/2020	Creation document

DATA 4 ITALY - DC06

Fiche technique Alternateur / Generator Datasheet

Scheda Generatore

GENERATOR DETAIL

OCTOBER 27, 2020

(SZJ00106)-ENGINE (L2D00063)-GENERATOR (SNF00123) -GENSET

For Help Desk Phone Numbers Click here

Selected Model

Engine: 3516	**Generator Frame:** 1669	**Genset Rating (kW):** 2000.0	**Line Voltage:** 400
Fuel: Diesel	**Generator Arrangement:** 2523890	**Genset Rating (kVA):** 2500.0	**Phase Voltage:** 230
Frequency: 50	**Excitation Type:** Internal Excitation	**Pwr. Factor:** 0.8	**Rated Current:** 3608.4
Duty: STANDBY	**Connection:** SERIES STAR	**Application:** EPG	**Status:** Current

Version: 41205 /42726 /43172 /12387

Spec Information

Generator Specification

Frame: 1669 **Type:** SR5	**No. of Bearings:** 2
Winding Type: RANDOM WOUND	**Flywheel:** 21.0
Connection: SERIES STAR	**Housing:** 00
Phases: 3	**No. of Leads:** 6
Poles: 4	**Wires per Lead:** 4
Sync Speed: 1500	**Generator Pitch:** 0.6667

Generator Efficiency

Per Unit Load	kW	Efficiency %
0.25	500.0	95.0
0.5	1000.0	96.5
0.75	1500.0	96.6
1.0	2000.0	96.3

Reactances	Per Unit	Ohms
SUBTRANSIENT - DIRECT AXIS X''_d	0.1188	0.0076
SUBTRANSIENT - QUADRATURE AXIS X''_q	0.1469	0.0094
TRANSIENT - SATURATED X'_d	0.2266	0.0145
SYNCHRONOUS - DIRECT AXIS X_d	3.0375	0.1944
SYNCHRONOUS - QUADRATURE AXIS X_q	1.8234	0.1167
NEGATIVE SEQUENCE X_2	0.1328	0.0085
ZERO SEQUENCE X_0	0.0281	0.0018

Time Constants	Seconds
OPEN CIRCUIT TRANSIENT - DIRECT AXIS T'_{d0}	3.3900
SHORT CIRCUIT TRANSIENT - DIRECT AXIS T'_d	0.2980
OPEN CIRCUIT SUBSTRANSIENT - DIRECT AXIS T''_{d0}	0.3890
SHORT CIRCUIT SUBSTRANSIENT - DIRECT AXIS T''_d	0.0260
OPEN CIRCUIT SUBSTRANSIENT - QUADRATURE AXIS T''_{q0}	0.2000
SHORT CIRCUIT SUBSTRANSIENT - QUADRATURE AXIS T''_q	0.0180
EXCITER TIME CONSTANT T_e	0.0770
ARMATURE SHORT CIRCUIT T_a	0.0490

Short Circuit Ratio: 0.42	Stator Resistance = 0.001 Ohms	Field Resistance = 0.58 Ohms

Voltage Regulation

Voltage level adjustment: +/-	5.0%
Voltage regulation, steady state: +/-	0.5%
Voltage regulation with 3% speed change: +/-	0.5%
Waveform deviation line - line, no load: less than	2.0%
Telephone influence factor: less than	50

Generator Excitation

	No Load	Full Load, (rated) pf	
		Series	Parallel
Excitation voltage:	12.6 Volts	51.46 Volts	Volts
Excitation current	1.5 Amps	5.04 Amps	Amps

Selected Model

Engine: 3516	**Generator Frame:** 1669	**Genset Rating (kW):** 2000.0	**Line Voltage:** 400
Fuel: Diesel	**Generator Arrangement:** 2523890	**Genset Rating (kVA):** 2500.0	**Phase Voltage:** 230
Frequency: 50	**Excitation Type:** Internal Excitation	**Pwr. Factor:** 0.8	**Rated Current:** 3608.4
Duty: STANDBY	**Connection:** SERIES STAR	**Application:** EPG	**Status:** Current

Version: 41205 /42726 /43172 /12387

Generator Mechanical Information

Center of Gravity

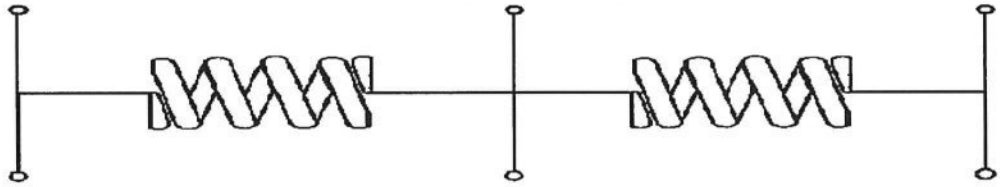
Dimension X	0.0 mm	0.0 IN.
Dimension Y	0.0 mm	0.0 IN.
Dimension Z	0.0 mm	0.0 IN.

- "X" is measured from driven end of generator and parallel to rotor. Towards engine fan is positive. See General Information for details
- "Y" is measured vertically from rotor center line. Up is positive.
- "Z" is measured to left and right of rotor center line. To the right is positive.

Generator WT = 0 kg * Rotor WT = 0 kg * Stator WT = 0 kg
0.0 LB 0.0 LB 0.0 LB

Rotor Balance = 0.0508 mm deflection PTP
Overspeed Capacity = 150% of synchronous speed

Generator Torsional Data



J1 = Coupling and Fan | **J2 = Rotor** | **J3 = Exciter End**

TOTAL J = J1 + J2 + J3

K1 = Shaft Stiffness between J1 + J2 (Diameter 1)

K2 = Shaft Stiffness between J2 + J3 (Diameter 2)

J1	K1	Min Shaft Dia 1	J2	K2	Min Shaft Dia 2	J3
0.0 LB IN. s^2	0.0 MLB IN./rad	0.0 IN.	0.0 LB IN. s^2	0.0 MLB IN./rad	0.0 IN.	0.0 LB IN. s^2
0.0 N m s^2	0.0 MN m/rad	0.0 mm	0.0 N m s^2	0.0 MN m/rad	0.0 mm	0.0 N m s^2

Total J
0.0 LB IN. s^2
0.0 N m s^2

Selected Model

Engine: 3516 **Generator Frame:** 1669 **Genset Rating (kW):** 2000.0 **Line Voltage:** 400
Fuel: Diesel **Generator Arrangement:** 2523890 **Genset Rating (kVA):** 2500.0 **Phase Voltage:** 230
Frequency: 50 **Excitation Type:** Internal Excitation **Pwr. Factor:** 0.8 **Rated Current:** 3608.4
Duty: STANDBY **Connection:** SERIES STAR **Application:** EPG **Status:** Current

Version:
41205 /42726 /43172 /12387

Generator Cooling Requirements - Temperature - Insulation Data

Cooling Requirements:		Temperature Data: (Ambient 40 ^{0}C)	
Heat Dissipated:	76.8 kW	**Stator Rise:**	150.0 ^{0}C
Air Flow:	150.0 m^3/min	**Rotor Rise:**	150.0 ^{0}C

Insulation Class: H

Insulation Reg. as shipped: 100.0 MΩ minimum at 40 ^{0}C

Thermal Limits of Generator

Frequency:	50 Hz
Line to Line Voltage:	400 Volts
B BR 80/40	1888.0 kVA
F BR -105/40	2148.0 kVA
H BR - 125/40	2360.0 kVA
F PR - 130/40	2360.0 kVA
H PR - 150/40	2502.0 kVA
H PR27 - 163/27	2596.0 kVA

Selected Model

Engine: 3516	**Generator Frame:** 1669	**Genset Rating (kW):** 2000.0	**Line Voltage:** 400
Fuel: Diesel	**Generator Arrangement:** 2523890	**Genset Rating (kVA):** 2500.0	**Phase Voltage:** 230
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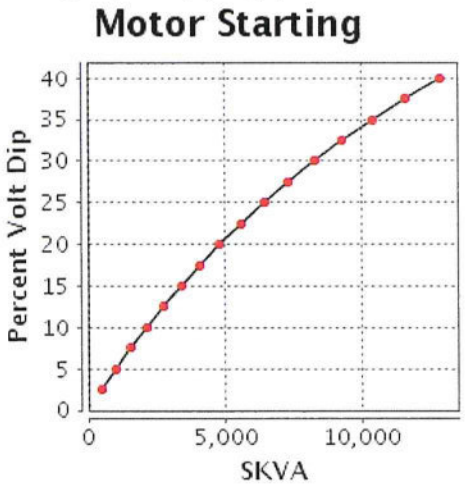
Duty: STANDBY	**Connection:** SERIES STAR	**Application:** EPG	**Status:** Current

Version: 41205 /42726 /43172 /12387

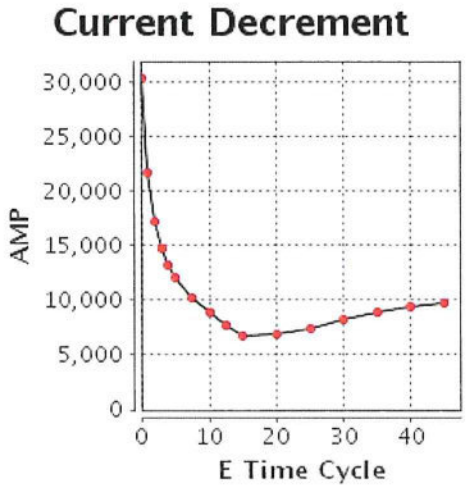
Starting Capability & Current Decrement
Motor Starting Capability (0.4 pf)

SKVA	Percent Volt Dip
495	2.5
1,015	5.0
1,564	7.5
2,144	10.0
2,756	12.5
3,405	15.0
4,093	17.5
4,824	20.0
5,602	22.5
6,431	25.0
7,319	27.5
8,269	30.0
9,290	32.5
10,389	35.0
11,577	37.5
12,863	40.0



Current Decrement Data

E Time Cycle	AMP
0.0	30,386
1.0	21,746
2.0	17,245
3.0	14,746
4.0	13,202
5.0	12,125
7.5	10,266
10.0	8,880
12.5	7,735
15.0	6,779
20.0	6,836
25.0	7,477
30.0	8,163
35.0	8,839
40.0	9,447
45.0	9,710



Instantaneous 3 Phase Fault Current: 30386 Amps **Instantaneous Line - Line Fault Current:** 24839 Amps
Instantaneous Line - Neutral Fault Current: 38687 Amps

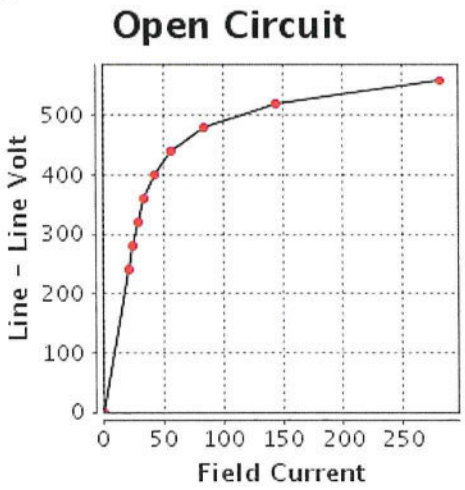
Selected Model

Engine: 3516	**Generator Frame:** 1669	**Genset Rating (kW):** 2000.0	**Line Voltage:** 400
Fuel: Diesel	**Generator Arrangement:** 2523890	**Genset Rating (kVA):** 2500.0	**Phase Voltage:** 230
Frequency: 50	**Excitation Type:** Internal Excitation	**Pwr. Factor:** 0.8	**Rated Current:** 3608.4
Duty: STANDBY	**Connection:** SERIES STAR	**Application:** EPG	**Status:** Current

Version:
41205 /42726 /43172 /12387

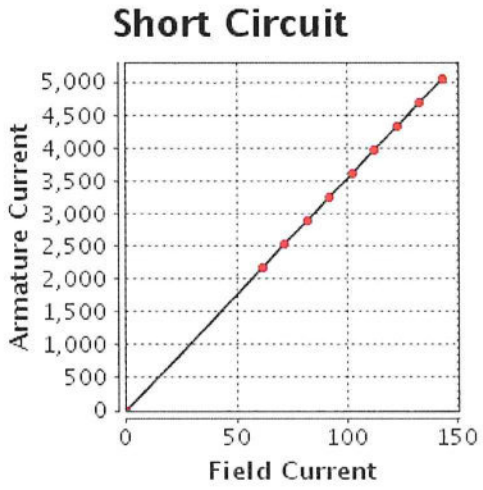
Generator Output Characteristic Curves
Open Circuit Curve

Field Current	Line - Line Volt
0.0	0
21.2	240
25.1	280
29.3	320
34.6	360
42.4	400
56.0	440
83.5	480
143.8	520
281.6	560



Short Circuit Curve

Field Current	Armature Current
0.0	0
61.5	2,165
71.7	2,526
82.0	2,887
92.2	3,248
102.5	3,608
112.7	3,969
122.9	4,330
133.2	4,691
143.4	5,052



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Engine: 3516	**Generator Frame:** 1669	**Genset Rating (kW):** 2000.0	**Line Voltage:** 400
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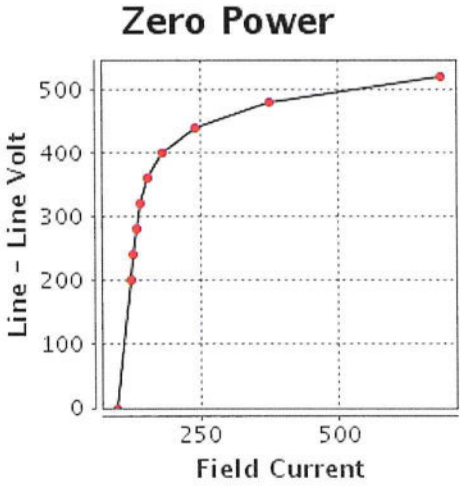
Version:
41205 /42726 /43172 /12387

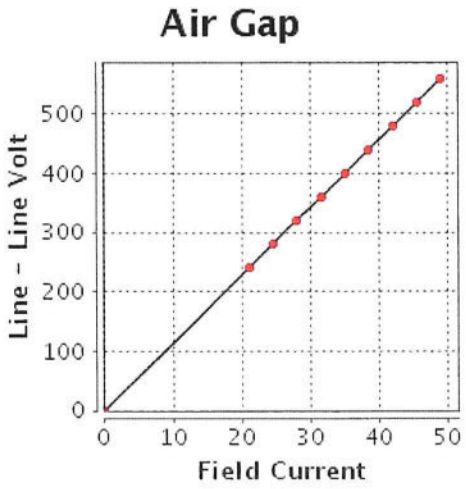
Generator Output Characteristic Curves
Zero Power Factor Curve

Field Current	Line - Line Volt
102.5	0
126.6	200
130.9	240
136.2	280
143.9	320
157.1	360
183.6	400
241.6	440
374.1	480
683.0	520



Air Gap Curve

Field Current	Line - Line Volt
0.0	0
21.0	240
24.5	280
28.0	320
31.5	360
35.0	400
38.5	440
42.0	480
45.5	520
49.0	560



Selected Model

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Selected Model

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Frequency: 50	**Excitation Type:** Internal Excitation	**Pwr. Factor:** 0.8	**Rated Current:** 3608.4
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41205 /42726 /43172 /12387

General Information

DM7825 Caterpillar SR5 Generators (50 Hz, 60 Hz)
Data for 1400, 1600, 1700, 1800 and 1900 frames Caterpillar SR5 generators built by Leroy Somer - USA and Leroy Somer France.

Refer to DM7821 for explanation of all generator data in Technical Marketing Information (TMI) except generator efficiency for which the explanation is given below.

GENERATOR EFFICIENCY
Generator efficiency is the percentage of engine flywheel (or other prime mover) power that is converted into electrical output. The generator efficiency shown is calculated by the summation of all losses method, and is determined in accordance with the IEC Standard 60034. The efficiency considers only the generator. There is no consideration of engine or parasitic losses here.

Refer to DM7829 for low and medium voltage protective setting values a nd limits.

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DATA 4 ITALY

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Cod	Data	Descrizione
	29/10/2020	Creation document

DATA 4 ITALY - DC06

Fiche technique déshuileur / Datasheet Cranckcase Filtration

Scheda Separatore aria olio dal carte

Systèmes de filtration des vapeurs de reniflard pour circuit fermé

Dans un circuit d'air ouvert, les gaz contaminés en huile passent par le reniflard et sont rejetés à l'atmosphère.

La législation imposée dans les différents pays (notamment EPA, UE), interdit l'émission des vapeurs de reniflard non traitées à l'atmosphère. Afin de réduire la quantité totale d'émissions provenant du moteur, les constructeurs ont été contraint de retraiter les vapeurs d'huile du bloc-moteur en les aspirant dans le collecteur d'admission d'air.

Les émanations de carter moteur sont produites lors de la combustion. Une partie des gaz suivant l'explosion passent au travers des segments de cylindre et entrent dans le carter. Lors de leur passage dans le carter, ces gaz se chargent d'un brouillard d'huile.

Le système de filtration de vapeurs de reniflard Racor retient ces particules. Les gaz peuvent ensuite être évacués dans l'atmosphère.

Un système de filtration en circuit fermé est recommandé pour les applications soumises à des normes d'émissions plus rigoureuses.

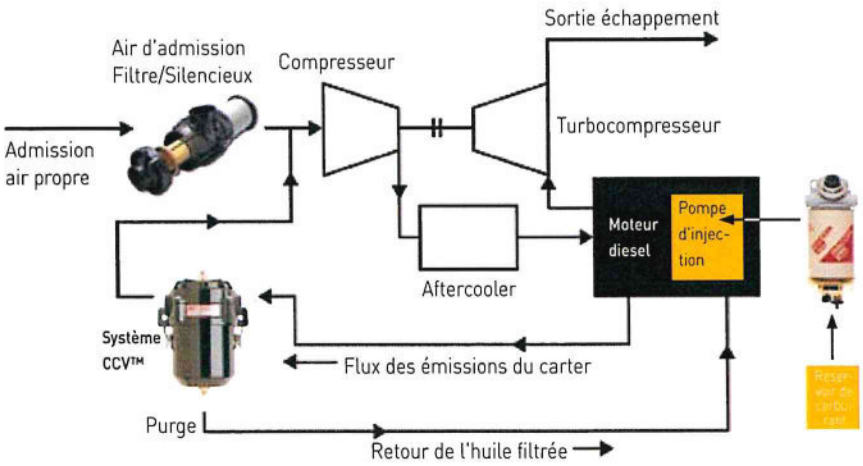
Dans cette application, les gaz venant du filtre reniflard sont amenés côte admission du turbocompresseur. Un régulateur intégré au filtre de reniflard contrôle la dépression dans le carter afin d'assurer un fonctionnement approprié.

Vues ci-dessous :
(en bas à droite) Moteur marin Cummins QSM11 avec système CCV en coupe.
(dessous) Moteur marin Caterpillar 3196 avec système Racor CCV/AF.

- Dans des environnements clos comme les compartiments de groupes électrogènes ou de moteurs marines, des dommages sur le matériel alentour comme les radiateurs et les tableaux de commande électroniques, peuvent créent des conditions dangereuses, des immobilisations et des coûts de maintenance.
- Le brouillard d'huile recouvre et contamine le postrefroidisseur (aftercooler) et d'autres composants du moteur.
  Ce dépôt réduit la capacité de refroidissement du moteur, générant ainsi à terme une dégradation des performances et de la fiabilité du moteur, et diminuant la durée de vie utile des composants.
- Le système d'admission d'air du moteur aspire des gaz contaminés, ce qui a pour effet de colmater les systèmes de filtration d'air et d'endommager les composantes du turbocompresseur.
  Il est impératif de filtrer les vapeurs de reniflard de carter avant que celles-ci pénètrent dans l'admission d'air du moteur sur des systèmes à circuits fermés.

Schéma de fonctionnement d'un moteur diesel moderne

Schéma illustrant la filtration de l'air d'admission, la filtration des vapeurs de reniflard, la filtration du carburant et la séparation d'eau sur un moteur diesel moderne.



Systèmes Racor CCV™

Robustes et compacts, les systèmes brevetés de filtration de vapeurs de reniflard pour circuit fermé Racor CCV favorise la coalescence des brouillards d'huile et assure un meilleur contrôle de la pression dans le carter, dans les conditions les plus exigeantes.

Le seul entretien de routine exigé par le système de filtration de vapeurs de reniflard pour circuit fermé Racor CCV est le remplacement du filtre. La durée de vie typique de ce filtre hautes performances est de 750 heures dans des applications diesel. Cette durée de vie peut varier en fonction du profil de charge, de l'état d'usure du moteur, du débit et de la concentration en masse des aérosols dans les vapeurs de reniflard de carter, ainsi que de la concentration de suie.

Choisir le bon modèle de Racor CCV : Les domaines d'application du Racor CCV sont déterminés par le flux des émissions du carter moteur exprimé en CFM. Sur les moteurs neufs, le CFM est faible mais il tend à augmenter avec l'usure du moteur. Sélectionnez le modèle Racor CCV approprié en divisant par 40 la puissance en chevaux du moteur.

Les unités CCV simples sont prévues pour prendre en charge différents débits d'émissions du carter moteur jusqu'à 40 CFM. Généralement, le flux des émissions du carter se calculent comme suit : Puissance nominale ÷ 40 = pied cube par minute (CFM). Cette formule peut uniquement être utilisée comme un guide, puisque les récentes améliorations apportées à la conception des pistons ont produit des moteurs d'une puissance supérieure, avec des flux de vapeurs de reniflard inférieures. Au moment de la remise à neuf, le flux de vapeurs de reniflard sur un moteur usé est généralement le double du débit d'un moteur neuf. Le débit d'un moteur usé est pris en compte dans la formule. Remarque : Préciser si l'entrée est côté droit ou gauche lors de la commande.

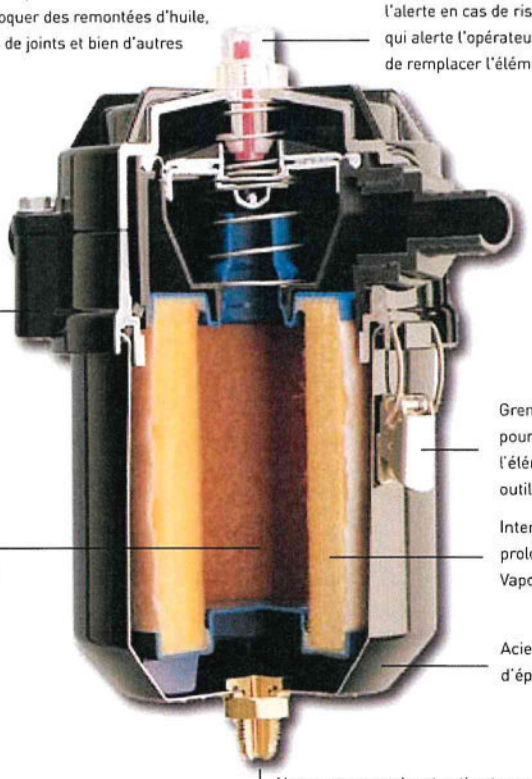
Exemple :

CAT 3116-260 ch / 40
= 6,5 CFM, sélectionner CCV4500

CAT 3406-525 ch / 40
= 13,13 CFM, sélectionner CCV6000

Un régulateur intégré breveté muni d'un by-pass minimise les variations de pression dans le carter. Ces dernières peuvent provoquer des remontées d'huile, des fuites sur les plans de joints et bien d'autres dommages.

Indicateur de colmatage qui donne l'alerte en cas de risque de dérivation et qui alerte l'opérateur lorsqu'il est temps de remplacer l'élément



Séparation Haute Efficacité de l'huile jusque 0,3 microns

Entrées et sorties possibles à droite comme à gauche

Composants en polymère haute résistance

Grenouillère en acier inox pour un changement de l'élément filtrant sans outils

Élément remplaçable haute performance avec un média filtrant coalescent en fibre de verre à grande capacité

Intervalles d'entretien prolongés avec l'élément Vaporbloc™

Acier traité à la poudre d'époxy

Température de fonctionnement max. en continu, - 40°C à 116°C

Une purge avec clapet anti-retour permet de retourner l'huile collectée et filtrée dans le carter moteur, réduisant de façon significative les purges fréquentes et la consommation d'huile.

Systèmes de filtration des vapeurs de reniflard pour circuit fermé

	CCV1500	CCV3500	CCV4500	CCV6000	CCV8000
Hauteur	130 mm	178 mm	235,0 mm	304,8 mm	352,6 mm
Largeur d'ouverture max. (y compris colliers & support)	208 mm	178 mm	190,5 mm	286,8 mm	336,6 mm
Profondeur	142 mm	160 mm	142,2 mm	185,4 mm	236,2 mm
Poids	0,68 kg	1,0 kg	1,48 kg	2,28 kg	3,96 kg
Dégagement min. pour dépose filtre	152 mm	117 mm	57,2 mm	101,6 mm	127,0 mm
Élément de remplacement/efficacité moyenne	CCV 55365-04	N.D.	N.D.	N.D.	N.D.
Élément de remplacement/efficacité élevée	N.D.	CCV 55304-06	CCV 55248-06	CCV 55274-06	CCV 55222-06
Élément de remplacement/efficacité ultra élevée	N.D.	CCV 55304-08	CCV 55248-08	CCV 55274-08	CCV 55222-08
Matériau du corps de filtre	Support acier en nylon renforcé de fibres de verre, poudre époxy noire	Composants en nylon renforcé de fibres de verre.	Tête en fonte, cuve en nylon renforcé de fibres de verre et acier, poudre époxy noire.	Tête en fonte, cuve en nylon renforcé de fibres de verre et acier, poudre époxy noire.	Tête en fonte, cuve en nylon renforcé de fibres de verre et acier, poudre époxy noire.
Taraudage entrées & sorties	Tuyau 3/4"	Tuyau 3/4"	1 3/16" - 12 STOR	1 5/8" - 12 STOR	1 7/8" - 12 STOR
Débit max. pied cube par minute	6,0" / 152 mm	84 l/min / 3,0" cfm	283 l/min / 10 cfm	566 l/min / 20 cfm	1132 l/min / 40 cfm
Régulateur de pression de carter	Limiteur de dépression	Intégré	Intégré	Intégré	Intégré
By-pass/Indicateur colmatage	N.D.	Intégré	Intégré ou externe	Intégré ou externe	Intégré ou externe
Orifice du clapet anti retour	N.D.	1/4" NPT	1/4" NPT	1/4" NPT	3/8" NPT
Raccord orientable (Qté)	N.D.	# 6 JIC (2 pces.)	# 6 JIC (2 pces.)	# 6 JIC (2 pces.)	# 8 JIC (2 pces.)
Tuyau de purge huile diam. int.	N.D.	0,375"	0,375"	0,375"	0,5"

Des détails complémentaires sont disponibles dans le manuel technique # 55021.

* Les unités peuvent être reliées à un même collecteur pour traiter des débits supérieurs.

Les systèmes CV820 et CV1000 captent les émanations de carter moteur et recyclent l'huile moteur à travers un filtre de profondeur, hautement performant. Ils contribuent à réduire les frais d'entretien des filtres à air et maintenir les salles de machines propres. Ces unités sont généralement utilisées comme système « ouvert » pour moteurs non turbocompressés.

Réf.	CV820	CV1000[2]
Diamètre	152 mm	207 mm
Hauteur	192 mm	215 mm
Poids	0,9 kg	1,4 kg
Dégagement min. pour changement élément filtrant	102 mm	102 mm
Matériau du corps de filtre	Aluminium anodisé Pièces en acier inox 18-8	Aluminium anodisé Pièces en acier inox 18-8
Orifice entrée	Femelle NPT 1"	Femelle NPT 1-1/4"
Orifice sortie	Femelle NPT 1"	Femelle NPT 1-1/4"
Plage de puissance	Jusqu'à 350 ch (75-260 KW)[1]	350-600 ch (260-450 KW)[1]
Débit max. pied cube par minute	283 l/min / 10 cfm	425 l/min / 15 cfm
Kit d'entretien	CV 820 SK	CV 1000 SK

Convient aux moteurs à aspiration naturelle. (1) L'utilisation d'au moins deux filtres autorise des débits supérieurs.
(2) Le Crankvent® CV1000 doit être utilisé sur les moteurs 2 temps avec purge de boite à air. Des détails complémentaires sont disponibles dans le manuel technique # 7503. Vous pouvez également contacter Racor.

Filtration des vapeurs de reniflards de carter en circuit ouvert

Elément filtrant de profondeur, haut rendement et haute capacité

Joints de formulation spéciale, à longue durée de vie

Le réservoir d'huile collecte les polluants traités

Un système de déflecteurs unique disperse les gaz à travers toute la longueur du média, améliorant ainsi l'efficacité et l'évacuation de l'huile dans le réservoir et maintenant une faible perte de charge tout au long de la durée de vie du filtre

Réduit les émissions de NOx et d'hydrocarbures en abaissant les températures de combustion (systèmes fermés uniquement)

La purge/clapet anti-retour intégrés permettent de collecter l'huile usagée pour une mise au rebut périodique. Pour un fonctionnement sans entretien, le clapet peut être plombé directement sur le carter d'huile

Closed Crankcase Ventilation

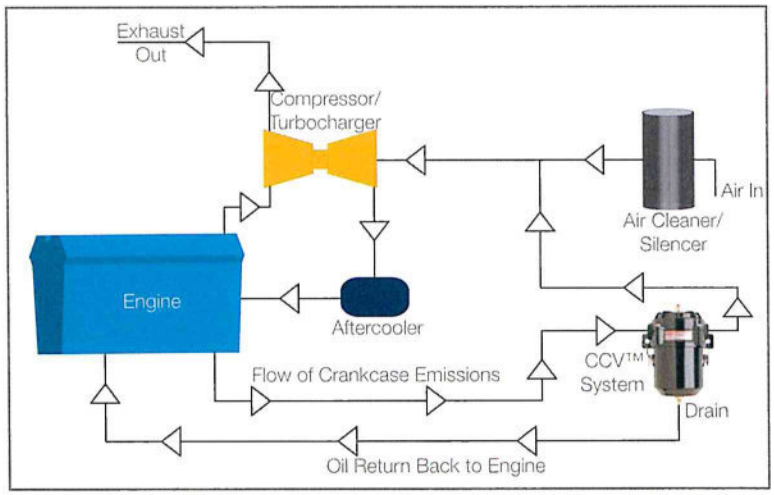
Market Challenges and Overview

The problem – Engines releasing pollutants through unfiltered breathers

Environmental concerns and legislation to control crankcase emissions have increased significantly. To further reduce the total emissions of engines, in some applications it is becoming necessary to close the crankcase breather system, routing these gases into the air intake system.

Crankcase blow-by is produced when combustion gases under high pressure are blown passed the piston rings into the crankcase. As these blow-by gases pass though the crankcase, they become contaminated. Racor's crankcase ventilation system removes these contaminations. The exhaust can then be allowed to be vented in the atmosphere.

For applications requiring more stringent emissions requirements, a closed crankcase filter is recommended. In this application, the exhaust from the crankcase filter is routed to the inlet side of the turbo. A regulator in the crankcase filter controls the vacuum in the crankcase to ensure proper operation.



CCV4500KIT01 is currently being used in many different front and rear engine configurations.

CCV4500 installed on a CAT engine.

CCV3551KIT01 installed on a Mercedes Sprinter Van.

- In closed environments like generator sets and marine engine rooms, damage to surrounding equipment such as radiators and electronic control panels can cause hazardous conditions, down time and expensive maintenance.
- Oil mist will coat and contaminate the aftercooler and other engine components. This coating reduces engine cooling capacity, causes a degradation of engine performance and reliability over time, and shortens the useful service life of the engine components.
- The engine intake inhales contaminated gasses, clogging air filter systems and damaging turbocharger components. It is imperative that oil mist be removed from the crankcase emissions prior to introduction into the engine air intake in closed breather systems.

Racor CCV Systems

In a robust, compact package, the patented Racor CCV closed crankcase ventilation filter systems provide superior oil coalescence and crankcase pressure control under the most severe conditions.

The only routine maintenance required for the Racor Crankcase Ventilation Filter System is filter replacement. Typical service life of the high-performance filter in diesel applications is 750 hours. Some variations in service life occur depending on load profile, engine wear condition, flow and aerosol mass concentration of crankcase emissions, and soot concentration.

How to Select A Racor CCV Assembly:

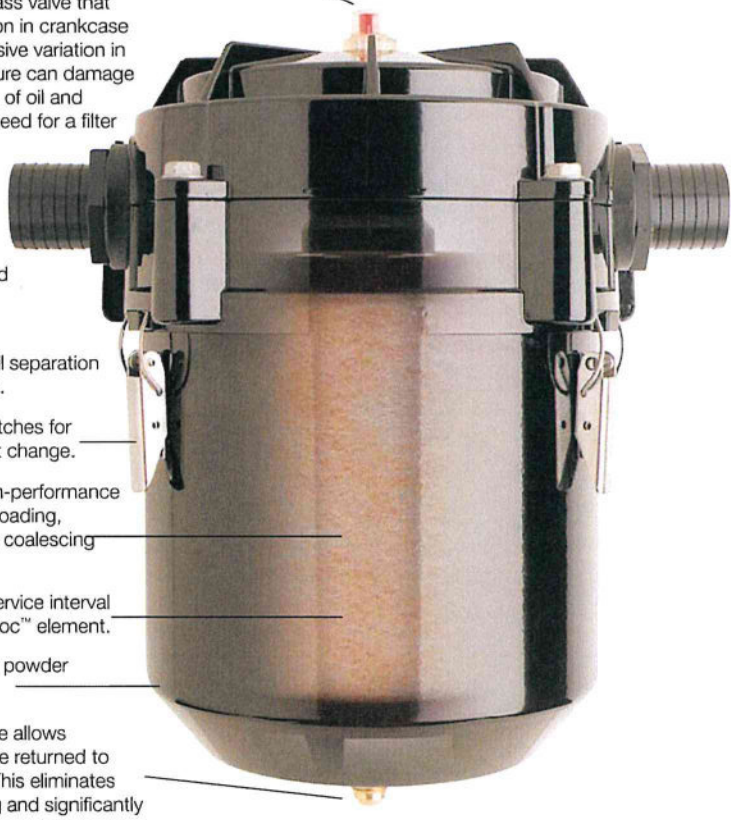
Racor CCV application is determined by crankcase flow in CFM. CFM on new engines is low but as the engine wears on, the CFM increases. Select the correct Racor CCV model by dividing the engine horsepower output by 40.

Single CCV units are designed to handle various crankcase flow rates up to 50 CFM. Traditionally, the crankcase flow rate can be calculated as follows: Rated horsepower ÷ 40 = cubic feet per minute (CFM). This formula can only be used as a guide since recent improvements in piston design have produced engines with higher horsepower and lower blow-by flow rates. The blow-by flow rate of a worn engine, at time of overhaul, is generally double the flow rate when the engine is new. The flow rate of a worn engine is factored into the formula. Note: Specify left- or right-hand inlet when ordering.

Example: CAT 3116-260HP / 40 = 6.5 CFM, select CCV4500
CAT 3406-525HP / 40 = 13.13 CFM, select CCV6000

Closed Crankcase Ventilation

Features and Benefits



Pop-up style indicator that alerts of a bypass condition and the need for a filter change.

Unique crankcase pressure regulator with integral bypass valve that minimizes variation in crankcase pressure. Excessive variation in crankcase pressure can damage seals, cause loss of oil and other problems need for a filter change.

Left- or right-hand inlet/ outlet options. Available with and without bypass.

High-efficiency oil separation to 0.3µ (microns).

Stainless steel latches for tool-less element change.

Replaceable high-performance filter with depth-loading, micro-glass fiber coalescing media.

Extended filter service interval from the Vaporbloc™ element.

Steel with epoxy powder coating.

Drain check valve allows collected oil to be returned to the crankcase. This eliminates frequent draining and significantly reduces oil consumption.

Maximum continuous operating temperature, -40°F to +240°F (-40°C to 116°C).

Closed Crankcase Ventilation Specifications

Specification	CCV1500	CCV3500	CCV4500	CCV6000	CCV8000	CCV12000
Weight	1.5 lbs / .68 kg	2.3 lbs / 1.0 kg	3.26 lbs / 1.48 kg	5.01 lbs / 2.28 kg	8.72 lbs / 3.96 kg	9.25 lbs / 4.19 kg
Replacement Element Media Density: Low	CCV 55365-04	N/A	CCV55248-04	N/A	N/A	N/A
Replacement Element Media Density: High	N/A	CCV55304-08	CCV55248-08	CCV55274-08	CCV55222-08	CCV55222-12-08
Replacement Element Media Density/Ultra	N/A	N/A	CCV55248-10	CCV55274-10	CCV55222-10	CCV55222-12-10
Housing Material	Glass-filled nylon and black powder epoxy-coated steel bracket.	Glass-filled nylon compo-nents.	Die cast head, glass-filled nylon and black powder epoxy-coated steel bowl.	Die cast head, glass-filled nylon and black powder epoxy-coated steel bowl.	Die cast head, glass-filled nylon and black powder epoxy-coated steel bowl.	Die cast head, glass-filled nylon and black powder epoxy-coated steel bowl.
Inlet & Outlet Thread Size	3/4" hose	3/4" hose	1 3/16" - 12 STOR	1 5/8" - 12 STOR	1 7/8" - 12 STOR	1 7/8" - 12 STOR
Max. Cubic Feet per Minute	1 cfm / 30 lpm	3.0 cfm / 84 lpm	10 cfm / 283 lpm	20 cfm / 566 lpm	40 cfm / 1132 lpm	50 cfm / 1415.8 lps
Crankcase Pressure Regulator	Vacuum limiting valve	Integral	Integral	Integral	Integral	Integral
Bypass/Change Indicator	N/A	Integral	Integral or Remote	Integral or Remote	Integral or Remote	Integral or Remote
Engine Block Check Valve Return Fitting	N/A	1/4" NPT	1/4" NPT	1/4" NPT	3/8" MNPT	3/8" MNPT
Swivel Fitting (Qty.)	N/A	# 6 JIC (2pcs.)	# 6 JIC (2pcs.)	# 6 JIC (2pcs.)	# 8 JIC (2pcs.)	# 8 JIC (2pcs.)
Oil drain hose I.D.	N/A	.375"	.375"	.375"	.5"	.5"

Additional details are available in technical manual #55021.
* Units can be manifolded to handle higher flow rates.

CCV Series - CCV8000/CCV8001

AIR

Specifications:

Height: 13.81" (35.08 cm)
Width: 10.61" (26.95 cm)
Depth: 9.3" (23.61 cm)
Weight: 8.7 lbs (3.9 kg)
Ports: 1 7/8-12 UN-2B SAE O-ring Thread
Service Clearance (Bottom): 5.0" (12.7 cm)
Max Airflow: 40 CFM (1133 LM)
Max Engine Rating: 1600 HP (1193 KW)
Note: Closed system CCV assemblies include a visual bypass indicator.
Hose Fittings sold seperately - See parts section

Create a Part Number

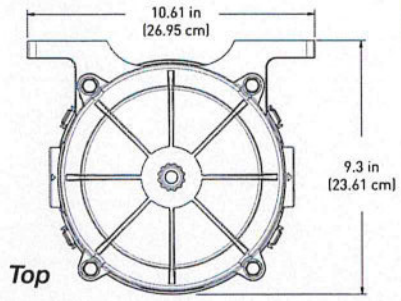
Housing Type	Filtration Rating	Bypass Type *		Filtration Type **		Flow Direction	
Closed Crankcase Ventilation Filter	CCV Model Up to 40 CFM - 1600HP	Bypass Assembly	Non-Bypass Assembly	High Density Media	Ultra Density Media	Left Side - Inlet	Right Side - Inlet
CCV	80	00	01	-08	-10	L	R

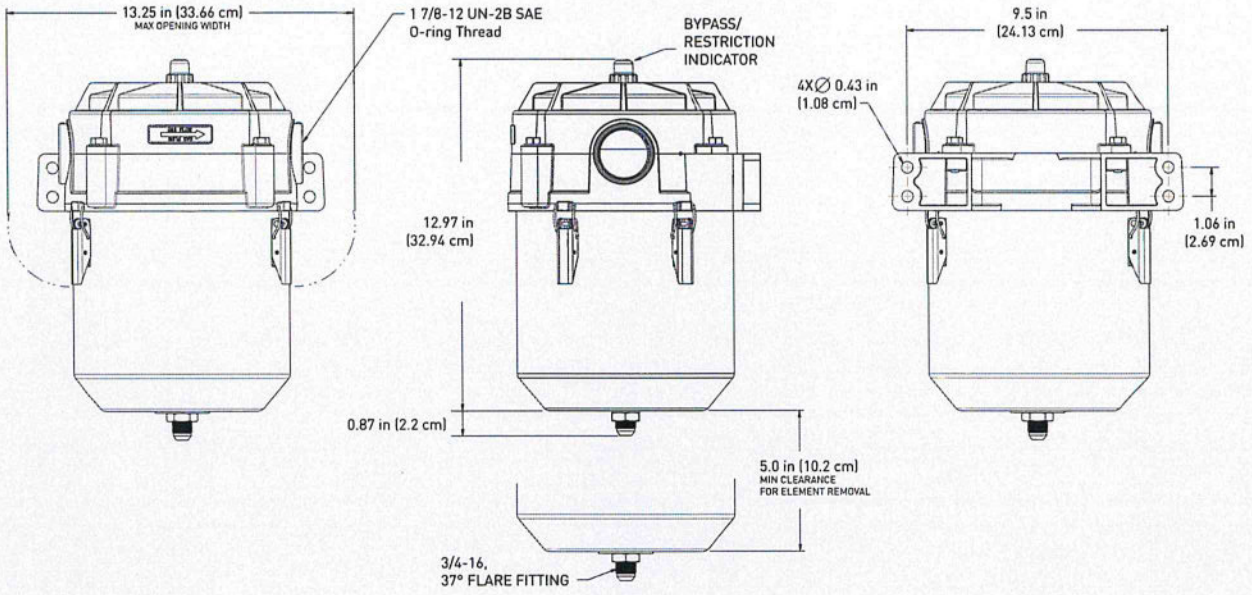
** If plugged: Bypass assemblies allow aerosols to bypass the filter and reach the turbo. If plugged: Non-Bypass assemblies will experience increased pressure on oil pan and non-pressurized engine ports.*

*** Ultra Density filters offer higher cleanliness efficiency; recommended for older engines.*

ASSEMBLY	DESCRIPTION
CCV8000-08L	Closed System; Up to 40 CFM/1600 HP; Bypass; High Density Media; Left Inlet
CCV8000-08R	Closed System; Up to 40 CFM/1600 HP; Bypass; High Density Media; Right Inlet
CCV8000-10L	Closed System; Up to 40 CFM/1600 HP; Bypass; Ultra Density Media; Left Inlet
CCV8000-10R	Closed System; Up to 40 CFM/1600 HP; Bypass; Ultra Density Media; Right Inlet
CCV8001-08L	Closed System; Up to 40 CFM/1600 HP; Non-Bypass; High Density Media; Left Inlet
CCV8001-08R	Closed System; Up to 40 CFM/1600 HP; Non-Bypass; High Density Media; Right Inlet
CCV8001-10L	Closed System; Up to 40 CFM/1600 HP; Non-Bypass; Ultra Density Media; Left Inlet
CCV8001-10R	Closed System; Up to 40 CFM/1600 HP; Non-Bypass; Ultra Density Media; Right Inlet

Dimensions:

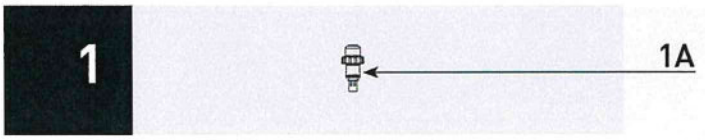


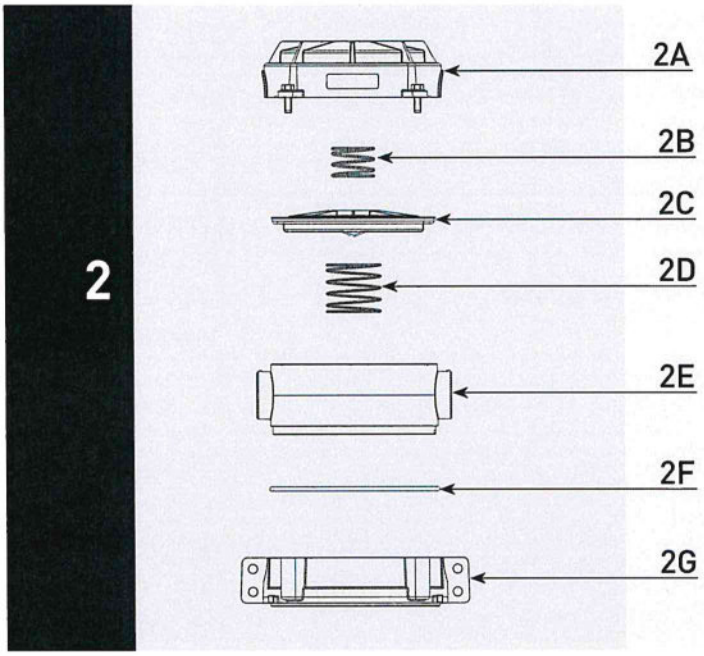


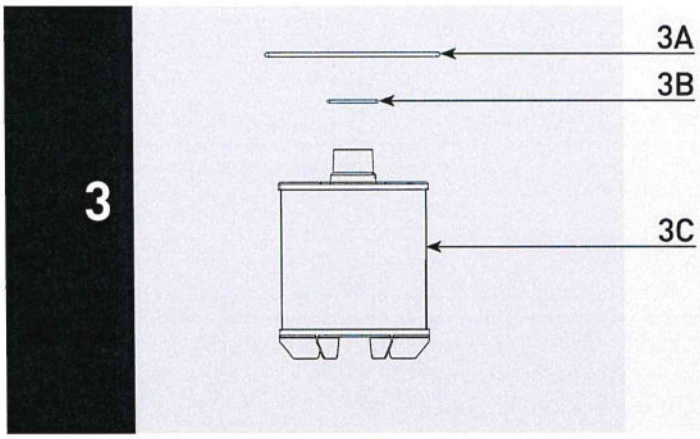
WARNING: The products described in this literature can expose you to chemicals including Diisononyl phthalate, Carbon black extract, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

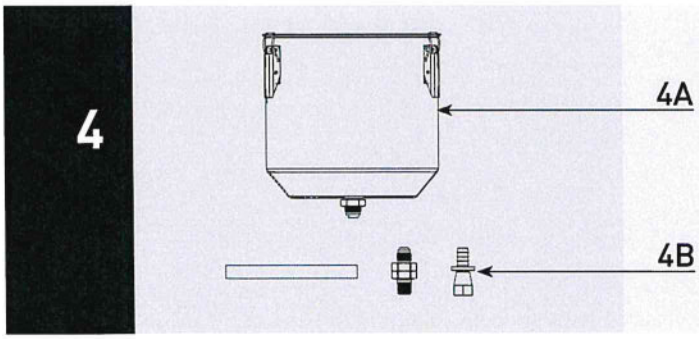
PARTS

CCV Series - CCV8000/CCV8001









	Part #	Description
1A	**CCV55081**	CCV8000/CCV8001 Bypass/Filter Change Indicator Kit
2A	**CCV55220L** **CCV55220R**	CCV8000 Head Assembly (Bypass Assy.) - (L) Left Inlet or (R) Right Inlet - ***Includes 1A, 2B, 2C, 2D, 2E, 2F, & 2G*** ***Note:*** *Contact Racor Regarding CCV8001 Head Assembly (Non-Bypass Assy.)*
2B		Diaphram Spring - top
2C	**CCV55221**	CCV8000/CCV8001 Diaphram Kit - ***Includes 2B, 2D, 2F, and 3B***
2D		Diaphram Spring - Bottom
2E		CCV Valve (Bypass Assy.)
2F		Housing Gasket
2G		Head Assembly Bracket
3A		CCV Housing Gasket
3B		CCV Filter O-ring
3C	**CCV55222-08**	CCV8000/CCV8001 Replacement Element - High Density - ***Includes 3A & 3B***
	CCV55222-10	CCV8000/CCV8001 Replacement Element - Ultra Density - ***Includes 3A & 3B***
4A	**CCV55223**	CCV8000/CCV8001 Housing Assembly - ***Includes 3A***
	CCV55613-08	CCV12000/CCV12001 Conversion Kit - ***Includes 3A, 3B, 3C (CCV55222-12-08), and 6A***
	CCV55613-10	CCV12000/CCV12001 Conversion Kit - ***Includes 3A, 3B, 3C (CCV55222-12-10), and 6A***
4B	**CCV55071**	Drain Kit - 1/2" I.D. x 3' Hose, Check Valve, (2) Swivel Fitting

Available Fittings, Hose, Fittings + Hose Kits *(Not Shown)*
NOTE: Initial Install Requires Fittings & Hose; See Brochure 7790 for requirements

5A	**CCV55218**	Inlet/Outlet Fitting - 1 1/2" OD Hose Barb to 1 7/8" SAE
5B	**CV1112-01-C**	Inlet/Outlet Hose - 1 1/2" ID Hose (Per Ft.)
5C	**CCV55067**	Hose/Fitting Kit - (2) 1-½" fittings, (1) 1-½" ID x 10 foot hose, (1) bushing reducer, (4) clamps and (4) ties
	CCV55068	Hose/Fitting Kit - (2) 1-½" fittings, (1) 1-½" Tee fitting , (1) 1-½" ID x 12 foot hose, (2) bushing reducers, (8) clamps and (8) ties
	CCV55069	Hose/Fitting Kit - (2) 1-½" fittings, (1) 1-½" ID x 5 foot hose w/2" cuff, (1) bushing reducer, (1) 1-½" ID x 5 foot hose, (4) clamps and (4) ties

Accessories and Parts Available *(Not Shown)*

6A	**CCV55374**	Heavy-Duty Wear Spacer - *Protects element from excesive vibrations*
6B	**CCV55463-24**	CCV Heater Kit - 24v DC (200w)
6C	**CCV55615-01**	Electronic Remote Filter Gauge Kit

Online Link
CCV Product Selector

Questions? Email: **racortech@parker.com** Phone: **800-344-3286** News: www.**racornews**.com

SISTEMI DI VENTILAZIONE DEL CARTER (APERTI O CHIUSI) RACOR SERIE CCV E CV

Sistemi di ventilazione del carter Racor impediscono la formazione di patine su componenti fondamentali del motore rimuovendo la contaminazione d'olio dai gas di bypass del motore.
Disponibili in versione aperta (CV) e chiusa (CCV).

PANORAMICA PRODOTTO

La perdita di compressione del carter del motore si verifica quando i gas di combustione ad alta pressione fuoriescono oltre le fasce elastiche e nel carter. Dal momento che questi gas di blow-by passano attraverso il carter del motore, vengono inquinati da nebbia d'olio. In aree chiuse quali locali con generatori e sale macchine, il gas contaminato ricopre le attrezzature circostanti danneggiandole, con il risultato di creare condizioni di pericolo e far lievitare i costi di manutenzione. La nebbia d'olio della perdita di compressione incontrollata ricopre anche i postrefrigeratori e i turbocompressori dei motori, riducendone la capacità di raffreddamento e l'efficienza.

Per evitare questo problema, i sistemi di ventilazione del carter di Racor rimuovono la nebbia e i contaminanti presenti nei gas di blow-by. Nei sistemi chiusi (CCV) il filtro a efficienza elevata evita che il turbocompressore e il postraffreddatore si sporchino. Nei sistemi aperti (CV), evita che le pareti e le attrezzature circostanti si sporchino e consente agli scarichi puliti di riversarsi direttamente nell'atmosfera.

I sistemi sono dotati di chiusure in acciaio inossidabile per la sostituzione dell'elemento senza l'ausilio di strumenti e corpo in metallo (in acciaio per l'unità 4500 e in alluminio per le unità 6000, 8000 e 12000) con rivestimento a polveri epossidiche. Sono anche provvisti di una valvola di ritegno di scarico, che consente all'olio raccolto di tornare nel carter motore, con il risultato di una drastica riduzione dei consumi di olio.

I sistemi aperti sono accettabili per determinate situazioni e determinati motori. Tuttavia, negli ultimi anni, i problemi e la legislazione in materia ambientale relativamente al controllo delle emissioni del carter sono aumentati in modo significativo.
Nuove leggi per ridurre ulteriormente le emissioni totali dei motori rendono spesso necessario chiudere il sistema di sfiato del carter del motore. In questo caso, i gas di blow-by vengono convogliati verso l'ingresso del turbocompressore, dove possono essere bruciati invece di inquinare l'ambiente.

Come funzionano:

Serie CCV (sistemi di ventilazione del carter chiusi) - Anche i sistemi CCV (chiusi) di Racor 's CCV utilizzano il setto filtrante Vaporbloc™ in microfibra di vetro di profondità. In questi sistemi, non è consentito lo scarico nell'atmosfera dei gas di blow-by. Piuttosto i gas puliti e filtrati vengono reindirizzati verso l'ingresso del turbocompressore per essere bruciati nel motore. Le unità sono progettate in modo tale da gestire portate del carter motore fino a 1,42 m3/m e oltre, se si utilizzano più unità. Le unità CCV sono dotate di un esclusivo regolatore di pressione del carter motore dotato di valvola di bypass integrata. Il regolatore protegge il carter da eventuali sovrapressioni e sottopressioni, evitando danni alle guarnizioni e perdite d'olio.

Utilizzo in applicazioni marine - I motori diesel marini possono usufruire dell'installazione di un sistema che combina un'unità CCV e un filtro dell'aria/silenziatore. L'unità CCV include il setto filtrante Vaporbloc™ ad alte prestazioni di Racor. I filtri dell'aria/silenziatori serie AF per applicazioni marine includono un setto filtrante lavabile e si caratterizzano per la struttura solida, che ne garantisce la lunga durata nel tempo.

Se installato, lo sfiatatoio del carter del motore è collegato all'ingresso del gruppo CCV Racor. L'uscita CCV è collegata all'ingresso dell'aria di combustione del motore tramite un connettore dell'aspirazione d'aria, dove il gas di blow-by filtrato viene riciclato attraverso il processo di combustione. L'olio raccolto nella coppa dell'olio CCV viene rinviato al carter del motore attraverso un tubo flessibile e una valvola di ritegno dello scarico.

Note sull'utilizzo:

• L'unico intervento di manutenzione ordinaria richiesto per un sistema di ventilazione del carter di Racor è la sostituzione del filtro. La durata tipica del filtro ad alte prestazioni nelle applicazioni diesel è di 750 ore. Alcune variazioni della durata si verificano a seconda del profilo di carico, delle condizioni di usura del motore, del flusso, della concentrazione di massa delle sospensioni delle emissioni del carter del motore e della concentrazione di fuliggine. L'indicatore pop-up sulla parte superiore dell'unità CCV (sistema chiuso) segnala all'operatore il momento in cui è necessario sostituire il filtro (è disponibile opzionalmente un indicatore remoto: CCV55615-01)
• Le versioni "non di by-pass" dei filtri CCV (sistema chiuso) presentano lo stesso limite delle unità CV (carter aperto), ovvero la pressione del carter aumenta in caso di intasamento del filtro. Possono essere utilizzate soltanto se viene eseguita la manutenzione ordinaria del filtro e se sono state adottate misure di sicurezza contro le sovrapressioni del carter. Il mancato rispetto dei requisiti può causare danni alle guarnizioni e perdite d'olio.

Mercati:

• Agricoltura
• Costruzioni
• Produzione di energia
• Petrolio e gas
• Su strada/fuoristrada
• Settore navale

Applicazioni:

• Motori diesel

Vantaggi:

• Impedisce la formazione di patine sui componenti fondamentali del motore (ad esempio, turbocompressori e postrefrigeratori) rimuovendo la contaminazione d'olio dai gas di bypass del motore.
• Riduce i costi operativi e migliora la sicurezza negli ambienti chiusi, dove il gas contaminato dei motori rischia di ricoprire le attrezzature circostanti danneggiandole, con il risultato di creare condizioni di pericolo e far lievitare i costi di manutenzione.
• Requisiti di manutenzione minimi. La durata tipica del sistema di ventilazione del carter ad alte prestazioni nelle applicazioni diesel è di 750 ore.
• La valvola di ritegno di scarico consente all'olio raccolto di tornare nel carter motore, con il risultato di una drastica riduzione dei consumi di olio.
• Disponibile in configurazione aperta (CV) o chiusa (CCV) per soddisfare i requisiti specifici di tutti i motori.
• Adatto per l'utilizzo in applicazioni marine. '

Caratteristiche:

• Unità di ventilazione per carter del motore Racor per sistemi chiusi o aperti
• Separazione dell'olio a efficienza elevata fino a 0,3 micron
• Esclusivo regolatore di pressione del carter del motore
• Filtro intercambiabile ad alte prestazioni
• setto filtrante a coalescenza Vaporbloc™ in microfibra di vetro di profondità
• Corpo in acciaio con rivestimento a polveri epossidiche
• Valvola di ritegno di scarico
• Attacco di ingresso a destra o a sinistra
• Le unità chiuse offrono opzioni di by-pass o non by-pass
• Le unità chiuse offrono un indicatore stile pop-up o un indicatore remoto della condizione di by-pass
• Compatibile con portate fino a 1,42 m3/m (50 cfm)
• Intervallo di temperatura d'esercizio continuo da -40°C a 116°C (da -40° a 240°F)

Proprietà

DATA 4 ITALY

Progetto

DC 06
MILAN

Supervisore delegato del committente	**GIS.IMO S.r.l.** centro direzionale quattrotorri 06132 PERUGIA	Tél. : +39 075 517 29 83 Fax : +39 075 518 12 88
Assistente del committente	**GARRETTI ASSOCIATI S.r.l.** via Trieste, 9 - 20146 MILANO www.garrettiassociati.it	Tél. : +39 02 430 6931 Fax : +39 02 480 170 51
Progetto architettonico	GARRETTI ASSOCIATI S.r.l. via Trieste, 9 - 20146 MILANO www.garrettiassociati.it	Tél. : +39 02 430 6931 Fax : +39 02 480 170 51
Opere edili e prefabbricati	GENERALE PREFABBRICATI S.p.a centro direzionale quattrotorri 06132 PERUGIA www.generaleprefabbricatispa.com	Tél. : +39 075 517 29 83 Fax : +39 075 518 12 88
Impianti meccanici	OMEGA CONCEPT IMPIANTI E SISTEMI S.p.a. Via Chiese, 72 - 20126 - MILANO www.engie-axima.fr	Tél. : +39 02 8180951 Fax : +39 02 8135163
impianti elettrici/dati	ENGIE CONTRACTING ITALIA S.r.l. Via Chiese, 72 - 20126 - MILANO www.engie.com	Tél. : +39 02 94399262 Fax : +39 02 94399655
	SCHNEIDER ELECTRIC S.p.A. Via Circonvallazione Est, 1 - 24040 STEZZANO (BG) www.schneider-electric.com	Tél. : +39 0354151111 Fax : +39 0354153200
	ENERIA Rue de Longpont - BP 10202 - 91311 MONTLHERY Cedex - FRANCE www.eneria.fr	Tél. : +33 (0) 169802100 Fax : +33 (0) 169802150
Progettazione antincendio	**STUDIO TECNICO ZACCARELLI S.r.l.** via Ludovico il Moro, 17 - 20143 MILANO www.studiozaccarelli.it	Tél. : +39 02 891 200 81 Fax : +39 02 813 962 8
Supervisione	**ITALSOCOTEC S.p.a.** Via Pontaccio,12/A- 20121 Milano italsocotec@italsocotec.it	Tél. : +39 02 89051500 Fax : +39 02 89051501

Cod	Data	Descrizione
	29/10/2020	Creation document

DATA 4 ITALY - DC06

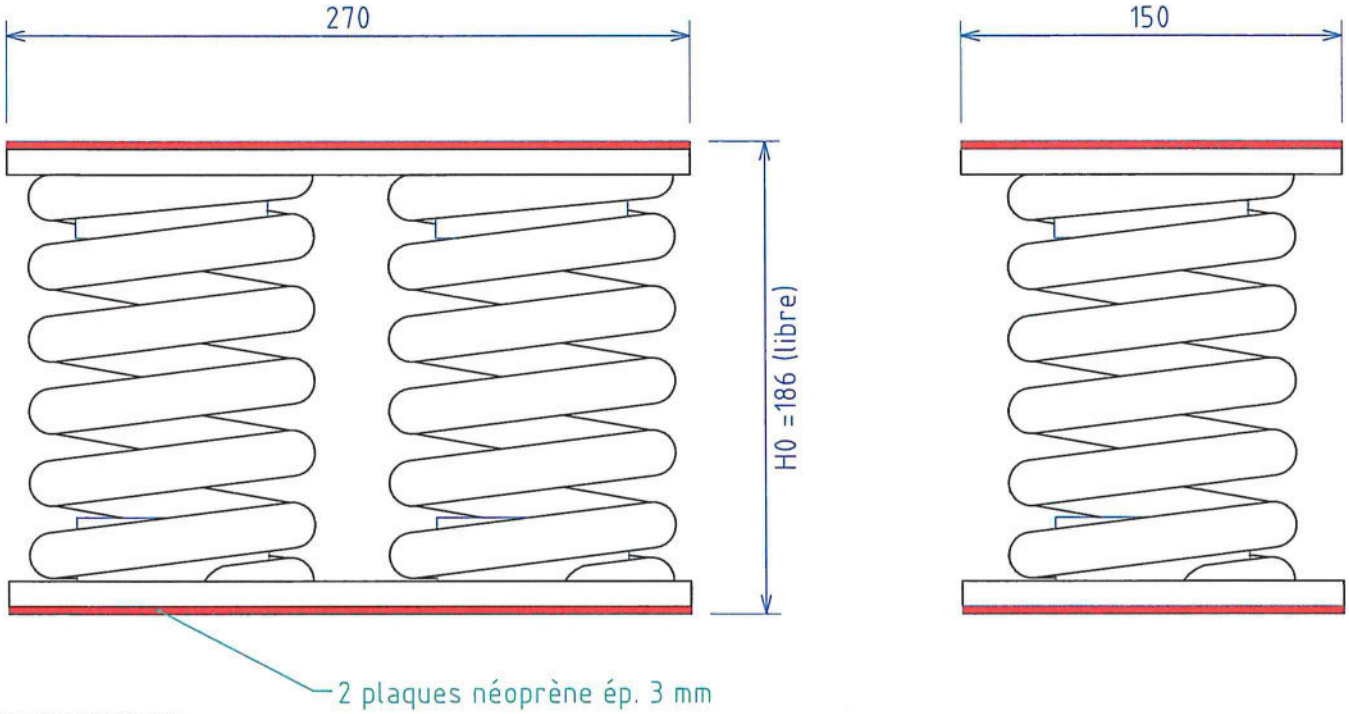
Fiche technique plots amortisseurs / Antivibration mounts Datasheet

Scheda Supporti antivibrazione

6 Av. des coquelicots
ZAC. des petits carreaux
94380 Bonneuil-sur-marne
Tel : 01 41 79 31 90
fax : 01 43 96 43 62

SUPPORTS ELASTIQUES TRES BASSE FREQUENCE
SERIE SR 1200/2-4 A SR 2500/2-4

date d'édition: 28/12/07



DESCRIPTION :

Les supports élastiques de la série SR 1200/2-4 à SR 2500/2-4 sont des boîtes à ressorts très basse fréquence. Elles sont constituées de :

- 2 ressorts en acier haute résistance classe C1 , admettant une grande déflexion et protégés par une peinture poudre époxy-polyester noire,
- 2 pièces d'assemblage protégées par zingage-bichromatage,
- 2 plaques de caoutchouc néoprène qui évitent toute fixation et améliorent le filtrage du bruit solidien hautes fréquences.

OPTIONS :

- *suffixe « G » : pièces mécaniques galvanisées à chaud.*
- *suffixe « V » : semelle inférieure type VIBRAFRAIN pour applications « acoustiques » (ajouter 7 mm à la hauteur des supports).*

CARACTERISTIQUES :

Modèles	Charge (daN)	Raideur Verticale (daN/mm)	Flèche (mm)	Fréquence Propre (Hz)	Poids (kg)
SR 1200/2-4	600 à 1200	20,8	29 à 58	2,9 à 2,1	12
SR 1350/2-4	675 à 1350	24,6	27 à 54	3,1 à 2,2	12
SR 1500/2-4	750 à 1500	28,4	26 à 52	3,1 à 2,2	12
SR 1650/2-4	825 à 1650	33,2	25 à 50	3,1 à 2,2	13
SR 1800/2-4	900 à 1800	38,0	23 à 46	3,3 à 2,3	13
SR 2000/2-4	1000 à 2000	43,0	23 à 46	3,3 à 2,3	14
SR 2200/2-4	1100 à 2200	48,0	23 à 46	3,3 à 2,3	15
SR 2350/2-4	1175 à 2350	52,6	22 à 44	3,4 à 2,4	15
SR 2500/2-4	1250 à 2500	57,2	22 à 44	3,4 à 2,4	15

APPLICATION :

Les supports de la série SR 1200/2-4 à SR 2500/2-4, par leur fréquence propre très basse sont particulièrement destinés à la suspension élastique des machines tournant à très faible vitesse .

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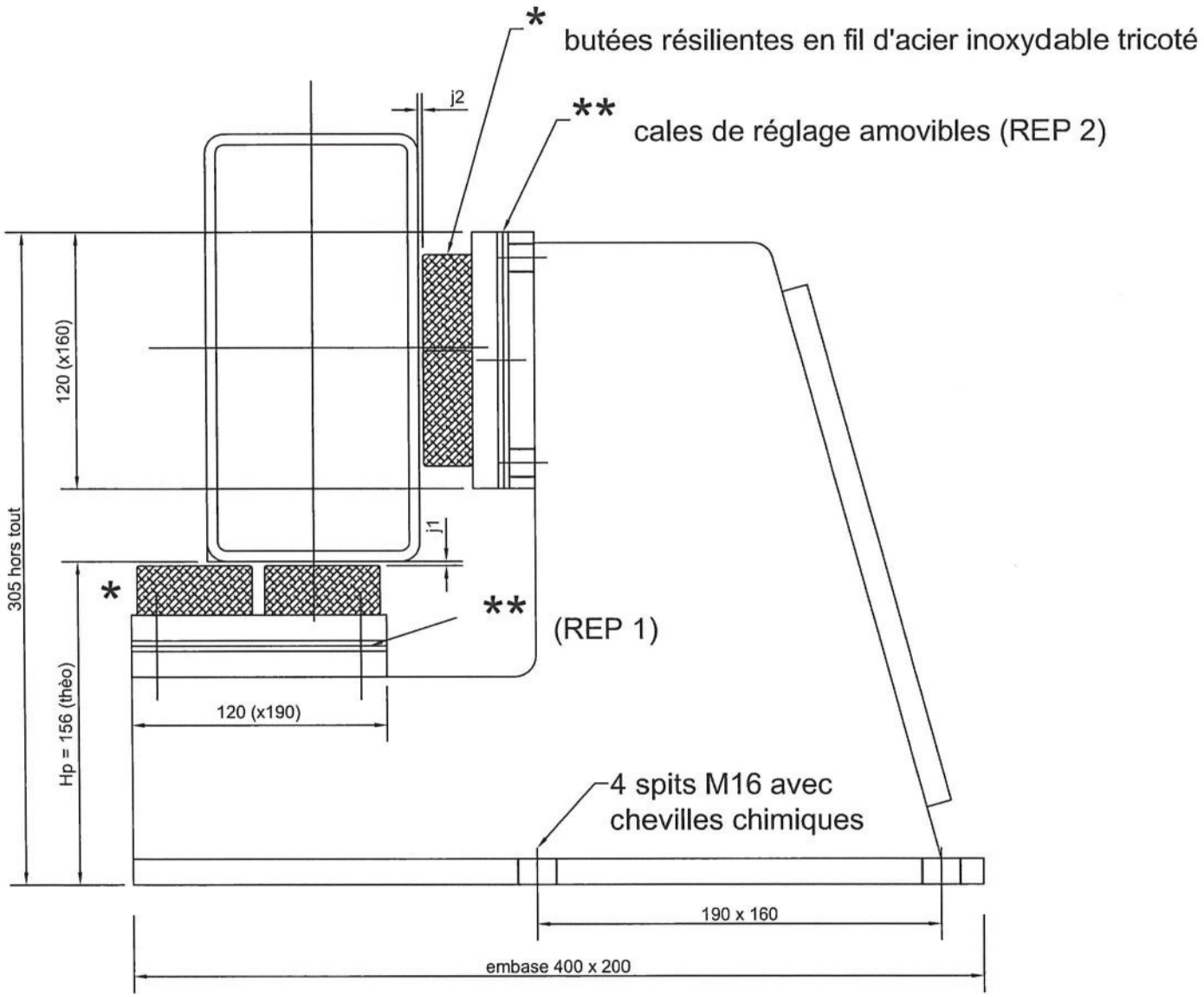
BUTEES SPECIALES TYPE BCR 3000/4-1c

date d'édition: 28/01/13

j1 & j2: jeux fonctionnels à règler après essais



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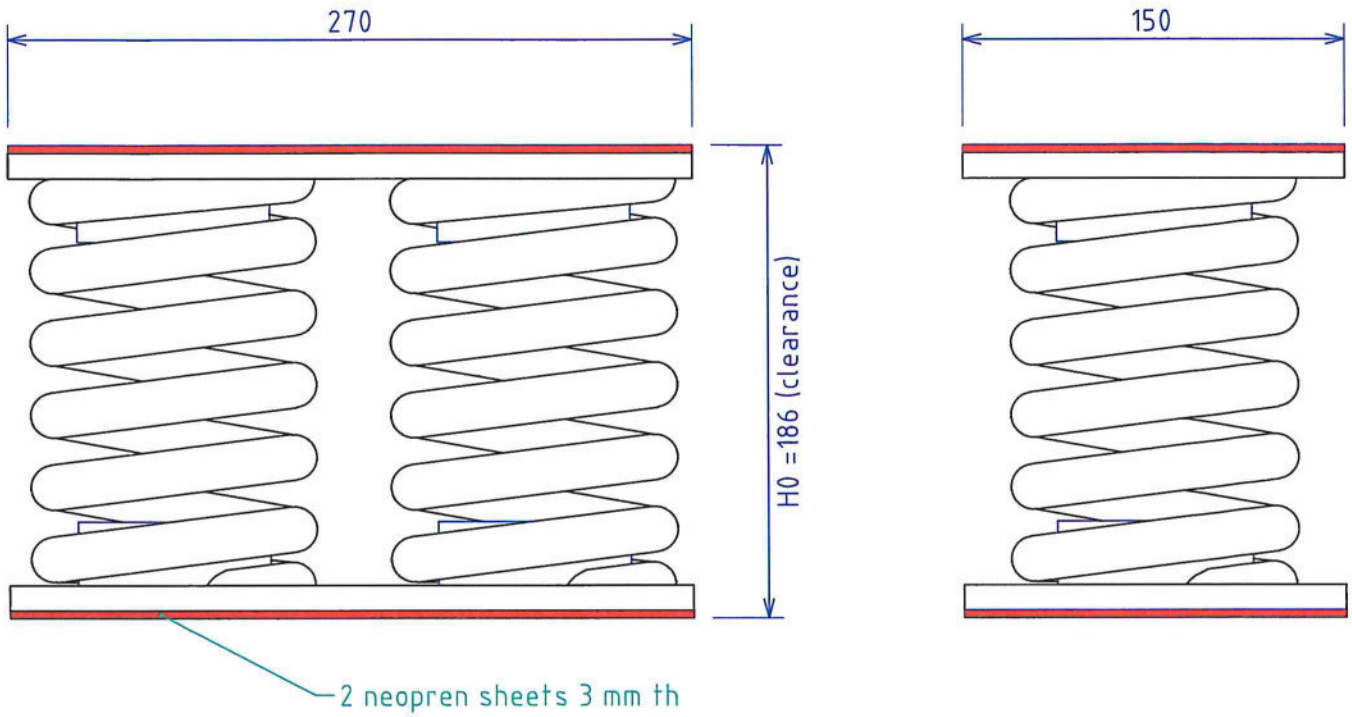
LOW FREQUENCY SPRING MOUNTS
SERIES SR 1200/2-4 TO SR 2500/2-4

edition date: 05/22/2020



DESCRIPTION :

The SR 1200/2-4 to SR 2500/2-4 elastic mounts series is a steel-spring anti-vibration support. It is especially designed with a low natural frequency. It is made with the following elements:

- 2 steel springs of class C1, according to the norm NFA 47.301 protected by a black epoxy paint.
- 2 steel plates, with a centering tube protected by epoxy paint,
- these plates are covered with anti-sliding neopren sheets to avoid fixing the supports and in order to improve the high frequency filtering of vibrations.

OPTIONS :

- */V : lower plate covered with a VIBRAFRAIN pad for acoustical improvement (add 5mm height).*

CARACTERISTICS :

Models	Loads (daN)	Vertical stiffness (daN/mm)	Horizontal stiffness (mm)	Natural frequency (Hz)	Weight (kg)
SR 1200/2-4	600 à 1200	20,8	29 à 58	2,9 à 2,1	12
SR 1350/2-4	675 à 1350	24,6	27 à 54	3,1 à 2,2	12
SR 1500/2-4	750 à 1500	28,4	26 à 52	3,1 à 2,2	12
SR 1650/2-4	825 à 1650	33,2	25 à 50	3,1 à 2,2	13
SR 1800/2-4	900 à 1800	38,0	23 à 46	3,3 à 2,3	13
SR 2000/2-4	1000 à 2000	43,0	23 à 46	3,3 à 2,3	14
SR 2200/2-4	1100 à 2200	48,0	23 à 46	3,3 à 2,3	15
SR 2350/2-4	1175 à 2350	52,6	22 à 44	3,4 à 2,4	15
SR 2500/2-4	1250 à 2500	57,2	22 à 44	3,4 à 2,4	15

APPLICATION :

These mounts are suitable for most of rotating machineries running at low speed (400 rpm and less)

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SUPPORTI ELASTICI MOLTO BASSO FREQUENZA
SERIE SR 1200/2-4 A SR 2500/2-4

DESCRIZIONE :

I supporti elastici della serie SR 1200/2-4 fino a SR 2500/2-4 sono di scatole a molla con bassa frequenza. Costituiti da :

- 2 molle in acciaio alta resistenza classe C1, con alta riflessione e protetti da una pittura polvere epossi-poliestere nera,
- 2 componenti di assemblaggio protetti da zincatura-bicromato,
- 2 pannelli di gomma neoprene che evitano qualsiasi fissazioni e migliorano il filtraggio del rumore solido alte frequenze.

OPZIONI :

- *suffisso « G » : componenti meccanici zincati a caldo .*
- *suffisso « V » : suola inferiore tipo VIBRAFRAIN per applicazioni « acustici »*

(aggiungere 7 mm all'altezza dei supporti).

CARATTERISTICHE :

Modelli	Carica (daN)	Rigidità Verticale (daN/mm)	Freccia (mm)	Frequenza propria (Hz)	Peso (kg)
SR 1200/2-4	600 fino a 1200	20,8	29 fino a 58	2,9 fine a 2,1	12
SR 1350/2-4	675 fino a 1350	24,6	27 fino a 54	3,1 fine a 2,2	12
SR 1500/2-4	750 fino a 1500	28,4	26 fino a 52	3,1 fine a 2,2	12
SR 1650/2-4	825 fino a 1650	33,2	25 fino a 50	3,1 fine a 2,2	13
SR 1800/2-4	900 fino a 1800	38	23 fino a 46	3,3 fine a 2,3	13
SR 2000/2-4	1000 fino a 2000	43	23 fino a 46	3,3 fine a 2,3	14
SR 2200/2-4	1100 fino a 2200	48	23 fino a 46	3,3 fine a 2,3	15
SR 2350/2-4	1175 fino a 2350	52,6	22 fino a 44	3,4 fine a 2,4	15
SR 2500/2-4	1250 fino a 2500	57,2	22 fino a 44	3,4 fine a 2,4	15

APPLICAZIONE :

I supporti della serie SR 1200/2-4 fino a SR 2500/2-4, per una frequenza propria molta bassa sono specialmente destinati alla sospensione elastica delle macchine che operano con una velocità molto bassa.